

## Height Data Graph – Empirical and Quantitative Skills

Use the class height data generated during Lab Unit 1 (p.16 – Figure 1: Height Measurements) to create a graph in the space below that **summarizes** the raw data collected. You may want to consider means, medians, and ranges as you try to determine how to best represent the data. Remember the idea of the graph is not to include every single data point, but to give the reader an easy to interpret picture of what happened. As a scientist it is your job to evaluate the raw data and organize it for your audience's understanding. Include the following components with the graph.

- Axis labeled with metric units of measurement.
- Independent variables on the x-axis and the dependent variable on the y-axis.
- Legend (if needed) and figure #

INSERT GRAPH HERE

Answer the following questions based on the graph that you created.

1. Why is the graph type (bar, line, circle, histogram, etc.) that you chose appropriate for this data set?
2. Choose two graph types (bar, line, circle, histogram, etc) that you didn't use to illustrate this data set. Explain why these non- utilized graph types are not appropriate for this data set.
3. In your own language, what does it mean to pair data points?
4. Did you pair your data points in the graph? Is pairing appropriate for this data?
5. What conclusion can be drawn about the lab height data from your graph? Write a concise 2-3 sentence conclusion that summarizes the major conclusions that can be drawn from the graph you created.
6. Imagine that you were asked to purchase lab tables and lab benches for a new biology lab. Based on your graph what would you suggest about the size of chairs, tables, benches and other physical equipment required for the space?

Two sample graphs are available in Canvas (Lab Report Guidelines and Sample Lab Report)

The assignment is due via Canvas